

12-607

Form 3160-3
(February 2005)

OCD-ARTESIA

RECEIVED

OCT 01 2012

NMOC D ARTESIA

FORM APPROVED
OMB NO. 1004-0137
Expires: March 31, 2007

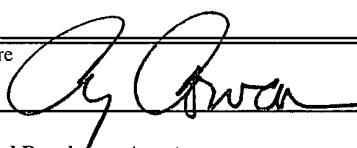
UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of Work: ☒ DRILL ☐ REENTER		5 Lease Serial No. NM-0437524 & MN-02426
1b Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator Yates Petroleum Corporation 025575 2		7. If Unit or CA Agreement, Name and No. N/A
3a. Address 105 South Fourth Street, Artesia, NM 88210	3b. Phone No. (include area code) 575-748-1471	8. Lease Name and Well No. Cerro "AQF" Federal Com. #211 <19991>
4. Location of well (Report location clearly and in accordance with any State requirements. *) At surface 310' FNL & 810' FEL, NENE, Section 15-T18S-29E At proposed prod. zone 330' FSL & 810' FEL, SESE, Section 15-T18S-R29E		9 API Well No. 30-015-40767 10. Field and Pool, or Exploratory Sand Tank; B.S. <96850> Wildcat Bone Spring
14. Distance in miles and direction from the nearest town or post office* Approximately 6 miles south of Loco Hills, NM		11. Sec., T., R., M., or Blk And Survey or Area Sec. 15-18S-29E
15 Distance from proposed* location to nearest (Also to nearest drlg unit line, if any) 330'		12. County or Parish Eddy
16. No. of acres in lease NM 87258 - 40 NM-0437524 400ac. & NM-02426 200ac. 240		13. State NM
17. Spacing Unit dedicated to this well N2S2-Sec.13-18S-29E		
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft Cerro AQF Fed Com #1 is 180' away 3500' horizontal line.		19. Proposed Depth 6750' TVD & 11053' MD
20 BLM/ BIA Bond No on file NATIONWIDE BOND #NMB000434		
21 Elevations (Show whether DF, KDB, RT, GL, etc.) 3477 GL		22. Aproximate date work will start* ASAP
23. Estimated duration 60 days		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1 shall be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by existing bond on file (see item 20 above) |
| 2. ap | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/ or plans as may be required by the BLM |

25 Signature 	Name (Printed/ Typed) Cy Cowan	Date 4/25/2012
Title Land Regulatory Agent		
Approved By (Signature) Is/ Don Peterson	Name (Printed/ Typed) Is/ Don Peterson	Date SEP 27 2012
Title f.d. FIELD MANAGER		
Office CARLSBAD FIELD OFFICE		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to cc operations thereon

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and wilfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

* (Instructions on page 2)

DISTRICT I
1626 N. French Dr., Hobbs, NM 88240
Phone (575) 398-6161 Fax: (575) 398-0720

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210
Phone (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-0176 Fax: (505) 334-0170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3440 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-40767	Pool Code 96832	Pool Name Sand Tank Wildcat Bone Spring
Property Code 19991	Property Name CERROS AQF FEDERAL COM	Well Number 2H
OGRID No. 025575	Operator Name YATES PETROLEUM CORP.	Elevation 3477'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	15	18 S	29 E		310	NORTH	810	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	15	18 S	29 E		330	SOUTH	810	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

OPERATOR: Please do not report production under this pool id code until OCD confirms perfs and appropriate pool designation on completion and C104 approvals.

SURFACE LOCATION
Lat - N 32°45'14.04"
Long - W 104°03'23.86"
NMSPCE- N 638112.204
E 626404.201
(NAD-83)

PROPOSED BOTTOM HOLE LOCATION
Lat - N 32°44'28.13"
Long - W 104°03'23.85"
NMSPCE- N 633472.146
E 626416.876
(NAD-83)

OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.
Signature Cy Cowan Date 4/11/12
Printed Name Cy Cowan
Email Address cy@yatespetroleum.com

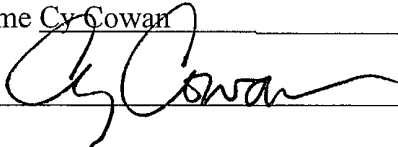
SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
Date Surveyed FEBRUARY 12, 2012
Signature & Seal of Professional Surveyor [Signature]
Certificate No. Gary L. Jones 7977
BASIN SURVEYS 26062

CERTIFICATION
YATES PETROLEUM CORPORATION
Cerros "AQF" Federal Com. #2H

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 11th day of April, 20 12.

Printed Name Cy Cowan

Signature 

Position Title Land Regulatory Agent

Address 105 South Fourth Street, Artesia, NM 88210

Telephone 575-748-4372

E-mail (optional) cy@yatespetroleum.com

Field Representative (if not above signatory) Tim Bussell

Address (if different from above) Same

Telephone (if different from above) 575-748-4221

YATES PETROLEUM CORPORATION
 Cerros "AQE" Federal Com. #2H
 310' FNL and 810' FEL, Section 15-18S-29E, Surface Hole Location
 330' FSL and 810' FEL, Section 15-18S-29E, Bottom Hole Location
 Eddy County, New Mexico

1. The estimated tops of geologic markers are as follows:

FORMATION	DEPTH	FORMATION	VERTICAL DEPTH	MD DEPTH
Rustler	125'	Grayburg	2464'	
Top of Salt	495'	San Andres	2945'	
Base of Salt	885'	Bone Spring LM	3975'	
Tansill	925'	First Bone Springs	6545' Oil	6625'
Yates	1135'	Target FBSG(Lateral)	6615' Oil	6872'
Seven Rivers	1435'	TD (Lateral Hole)	6750'	11053'
Queen	2055' Oil/Gas			

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered.

Water: 100'

Oil or Gas: Zones: 2055' Oil/Gas, 2465' Oil, 6950' Oil, 7570' Oil & 7980.

3. Pressure Control Equipment: 2000 PSI BOPE with a 13.625" opening will be installed on the 13.3/8" casing and pressure tested to 2000 PSI and held for 30 minutes before drilling out from under all casing strings, which are set and cemented in place. And a 5000 PSI BOPE with a 13.625 opening will be installed on the 9 5/8" casing and pressure tested to 5000 PSI and held for 30 minutes before drilling out from under all casing strings, which are set and cemented in place. Blowout Preventer controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.
4. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment, and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when Kelly is not in use.
5. THE PROPOSED CASING AND CEMENTING PROGRAM:

A. Casing Program: (All New)

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
26"	20"	94#	H-40/J-55 Hybrid	ST&C	0-58'	58'
17 1/2"	13 3/8"	48#	H-40	ST&C	0-400'	400'
12 1/4"	9 5/8"	36#	J-55/K-55	LT&C	0-3300'	3300'
8 3/4"	5 1/2"	17#	L-80	LT&C	0-6138'	6138'
8 1/2"	5 1/2"	17#	L-80	Buttress	6138'-11053'	4915'

See COA

Minimum Casing Design Factors: Burst 1.0, Tensile 1.8, Collapse 1.125

B. CEMENTING PROGRAM:

Surface Casing: Cement with 415 sacks Class C with 2% CaCl (Yld 1.34 Wt. 14.80). Casing designed with 100% excess. TOC surface.

Intermediate Casing: Lead with 970 sacks of 35:65:6zP (Yld 2.02 Wt 12.50). Tail in with 200 sacks Class C with 2% CaCl2 (Yld. 1.34 Wt. 14.80). Cement designed with 100% excess. TOC surface.

Production Casing: Lead with 545 sacks 35:65:6zp (Yld 2.00 Wt. 12.50). Tail in with 200 sacks Pecos VILt with D112, D151, D174, D177, D800 and D46 (Yld 1.41 Wt. 13.00). Cement designed with 35% excess. TOC 2800'. ** See COA*

Well will be drilled vertically to 6138'. The well will then be kicked off at approximately 6138' and directionally drilled at 12 degrees per 100' with a 8 3/4" hole to 6872' MD (6615' TVD), lateral will then be drilled with an 8 1/2" hole to 11053' MD (6750' TVD) where 5 1/2" will be run and cemented. Packer and ports will be utilized in the lateral. DV tool will be placed approximately 6865' and cemented 500' into intermediate at approximately 2800'. Penetration point of producing zone will encountered at 772' FNL and 809' FEL in Section 15-18S 29E. Deepest TVD in the well will be in the lateral at 6750' in the lateral.

6. MUD PROGRAM AND AUXILIARY EQUIPMENT:

See COA

INTERVAL	TYPE	WEIGHT	VISCOSITY	FLUID LOSS
0-400'	Fresh Water Gel	8.50-9.20	33-36	N/C
400'-3300'	Brine Water	9.80-10.20	28	N/C
3300'-11053'	Cut Brine	8.70	28-36	N/C

Sufficient mud material(s) to maintain mud properties, control lost circulation and to contain a blowout will be available at the well site during drilling operations. Rig personnel will check mud hourly.

7. EVALUATION PROGRAM: ** See COA*

Samples: 30' Samples to 5000'. 10' Samples from 5000' to TD.
Logging: Platform Express/Hals/CMR. (ran to approximately 6500')
Coring: None anticipated
DST's: None Anticipated
Mudlogging: Yes. From Surface Casing to TD.

8. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE, AND POTENTIAL HAZARDS:

Maximum Anticipated BHP:

0'-400' 191 PSI
400'-3300' 1750 PSI
3300'-6750' 3229 PSI

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: None.

H2S Zones Anticipated: None Anticipated however H2s plan has been included just in case.

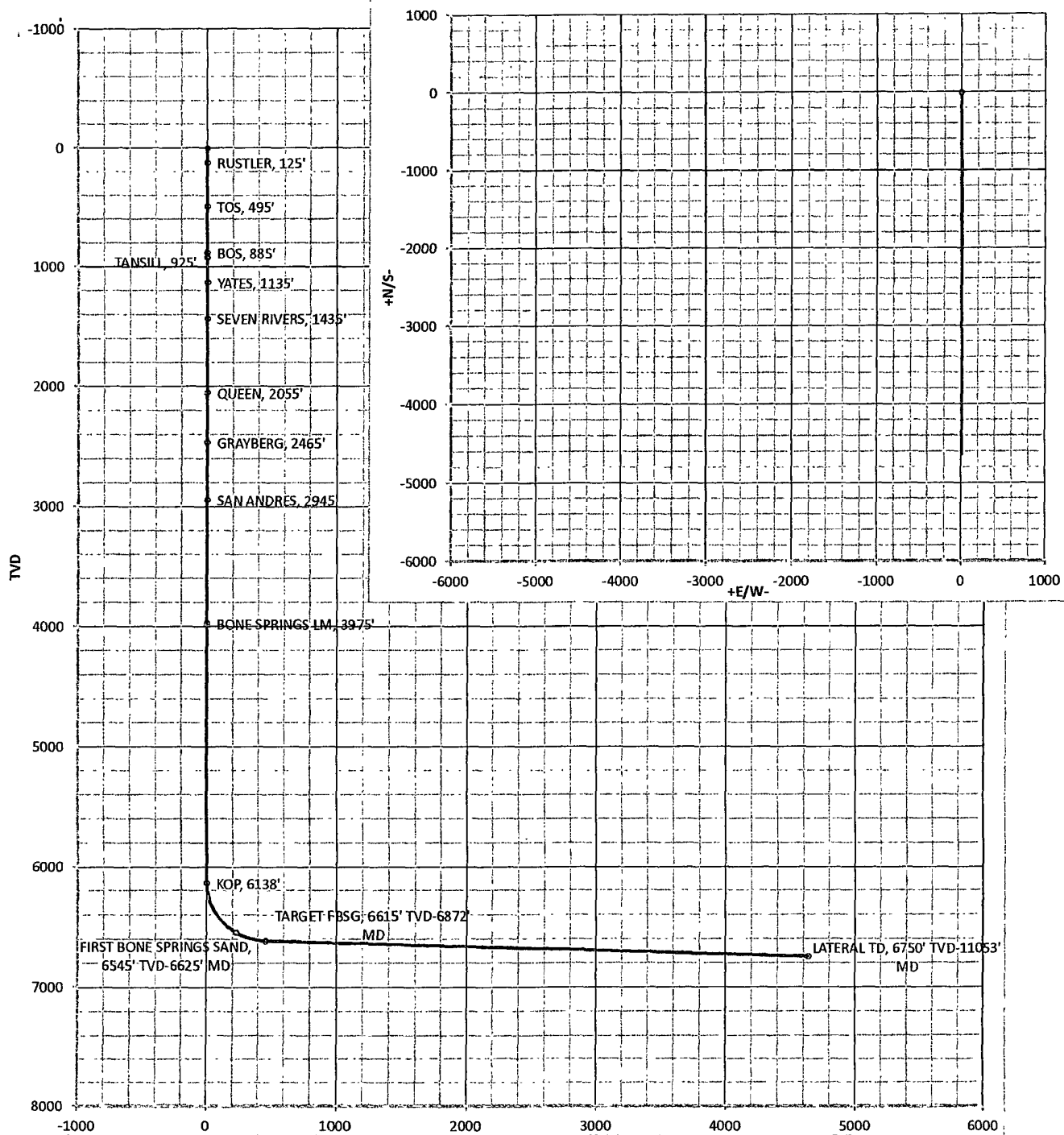
Maximum Bottom Hole Temperature: 155 F

9. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 60 days to drill the well with completion taking another 20 days.

Cerro AQF Fed Com #

Co: Yates Petroleum Corporation				Units: Feet, ° 7100ft		VS Az: 179.84		Method: Minimum Curvature				
Drillers: 0				Elevation:		Map System: NAD83, St. Plane, Wyoming West						
Well Name: Cerros AQF Federal Com #2H				Northing:		Latitude:						
Location: Sec. 15, 18S-29E				Easting:		Longitude:						
Yates Petroleum Corporation: Cerros AQF Fed Com #2H												
No.	MD	CL	Inc.	Azi.	TVD	VS	+N/S-	+E/W-	BR	WR	DLS	Comments
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
1	125.00	125.00	0.00	0.00	125.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 RUSTLER, 125'
2	495.00	370.00	0.00	0.00	495.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 TOS, 495'
3	885.00	390.00	0.00	0.00	885.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 BOS, 885'
4	925.00	40.00	0.00	0.00	925.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 TANSILL, 925'
5	1135.00	210.00	0.00	0.00	1135.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 YATES, 1135'
6	1435.00	300.00	0.00	0.00	1435.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 SEVEN RIVERS, 1435'
7	2055.00	620.00	0.00	0.00	2055.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 QUEEN, 2055'
8	2465.00	410.00	0.00	0.00	2465.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 GRAYBERG, 2465'
9	2945.00	480.00	0.00	0.00	2945.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 SAN ANDRES, 2945'
10	3975.00	1030.00	0.00	0.00	3975.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00 BONE SPRINGS LM, 3975'
11	6137.84	2162.84	0.00	179.84	6137.84	-0.01	0.01	0.00	0.00	2.93	0.00	0.00 KOP, 6138'
12	6200.00	62.17	7.46	179.84	6199.82	4.04	-4.04	0.01	12.00	0.00	12.00	
13	6300.00	100.00	19.46	179.84	6296.90	27.27	-27.27	0.07	12.00	0.00	12.00	
14	6400.00	100.00	31.46	179.84	6387.02	70.18	-70.18	0.19	12.00	0.00	12.00	
15	6500.00	100.00	43.46	179.84	6466.26	130.89	-130.89	0.36	12.00	0.00	12.00	
16	6600.00	100.00	55.46	179.84	6531.14	206.74	-206.74	0.56	12.00	0.00	12.00	
17	6625.45	25.45	58.51	179.84	6545.01	228.08	-228.08	0.62	12.00	0.00	12.00	12.00 FIRST BONE SPRINGS
18	6700.00	74.55	67.46	179.84	6578.83	294.43	-294.43	0.80	12.00	0.00	12.00	
19	6800.00	100.00	79.46	179.84	6607.25	390.11	-390.11	1.07	12.00	0.00	12.00	
20	6872.42	72.42	88.15	179.84	6615.05	462.05	-462.04	1.26	12.00	0.00	12.00	12.00 TARGET FBSG, 6615' TVD
21	11052.62	4180.21	88.15	179.84	6750.00	4640.07	-4640.06	12.68	0.00	0.00	0.00	0.00 LATERAL TD, 6750' TVD





Yates Petroleum Corp.

**Eddy County (NAD 83)
Cerro AQF Federal Com
#2H**

**OH
Plan #1**

Anticollision Report

04 April, 2012

PATHFINDER®

A Schlumberger Company



Pathfinder Anticollision Report

PATHFINDER
A Schlumberger Company

Company: Yates Petroleum Corp.
Project: Eddy County (NAD 83)
Reference Site: Cerros AQF Federal Com
Site Error: 0.0 usft
Reference Well: #2H
Well Error: 0.0 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well #2H
TVD Reference: KB = @ 3495.0usft (Silver Oak 10)
MD Reference: KB = @ 3495.0usft (Silver Oak 10)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 5,000.0 usft		Error Surface:
			Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	4/4/2012		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	11,052.6	Plan #1 (OH)	MWD	MWD - Standard	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Cerros AQF Federal Com						
#1 - OH - OH	7,757.4	6,615.4	161.7	-342.7	0.321	Level 1, CC, ES, SF

Offset Design Cerros AQF Federal Com - #1 - OH - OH													Offset Site Error: 0.0 usft
Survey Program: 255-INC													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	173.00	-1,346.1	165.4	1,356.5				
100.0	100.0	65.7	65.7	0.1	1.6	173.00	-1,346.4	165.4	1,356.5	1,355.6	0.98	1,381.182	
200.0	200.0	173.2	173.2	0.3	4.2	173.00	-1,346.5	165.4	1,356.6	1,353.9	2.66	509.806	
283.1	283.1	255.0	255.0	0.5	6.2	173.00	-1,346.1	165.4	1,356.2	1,352.3	3.96	342.849	
300.0	300.0	258.7	258.7	0.5	6.5	173.00	-1,346.1	165.4	1,356.3	1,352.2	4.08	332.504	
400.0	400.0	371.1	371.1	0.8	14.5	173.00	-1,346.6	165.4	1,356.7	1,349.7	6.93	195.710	
497.9	497.9	468.0	467.9	1.0	21.4	173.00	-1,346.1	165.4	1,356.2	1,346.8	9.43	143.866	
500.0	500.0	468.0	467.9	1.0	21.4	173.00	-1,346.1	165.4	1,356.2	1,346.8	9.43	143.796	
600.0	600.0	563.5	563.4	1.2	33.3	173.00	-1,346.7	165.4	1,356.9	1,344.7	12.14	111.767	
700.0	700.0	669.1	669.0	1.4	46.5	173.00	-1,347.0	165.4	1,357.2	1,342.0	15.15	89.604	
800.0	800.0	774.7	774.6	1.7	59.6	173.00	-1,346.9	165.4	1,357.0	1,338.9	18.17	74.690	
900.0	900.0	910.0	909.6	1.9	76.5	173.00	-1,346.1	165.4	1,356.8	1,334.8	22.00	61.683	
1,000.0	1,000.0	976.5	976.1	2.1	85.2	172.99	-1,345.7	165.4	1,355.9	1,332.1	23.78	57.025	
1,100.0	1,100.0	1,072.7	1,072.2	2.3	97.8	172.99	-1,345.4	165.4	1,355.6	1,329.3	26.26	51.622	
1,158.4	1,158.4	1,128.8	1,128.3	2.5	105.2	172.99	-1,345.4	165.4	1,355.5	1,327.8	27.71	48.913	
1,200.0	1,200.0	1,168.9	1,168.4	2.6	110.5	172.99	-1,345.4	165.4	1,355.5	1,326.8	28.75	47.148	
1,300.0	1,300.0	1,265.1	1,264.6	2.8	123.1	172.99	-1,345.7	165.4	1,355.8	1,324.5	31.25	43.388	
1,400.0	1,400.0	1,379.5	1,378.7	3.0	136.6	172.99	-1,345.9	165.4	1,356.0	1,321.9	34.14	39.716	
1,500.0	1,500.0	1,470.9	1,470.0	3.2	144.3	172.99	-1,345.6	165.4	1,355.7	1,319.3	36.42	37.222	
1,500.6	1,500.6	1,471.4	1,470.6	3.2	144.4	172.99	-1,345.6	165.4	1,355.7	1,319.2	36.44	37.208	
1,600.0	1,600.0	1,562.2	1,561.4	3.5	152.1	172.99	-1,345.8	165.4	1,356.0	1,317.3	38.70	35.040	
1,700.0	1,700.0	1,671.7	1,670.8	3.7	158.2	173.00	-1,345.9	165.4	1,356.0	1,314.8	41.18	32.932	
1,708.4	1,708.4	1,679.6	1,678.8	3.7	158.6	173.00	-1,345.9	165.4	1,356.0	1,314.7	41.35	32.792	
1,800.0	1,800.0	1,774.0	1,773.1	3.9	162.8	173.00	-1,346.1	165.4	1,356.2	1,312.8	43.43	31.229	
1,810.6	1,810.6	1,778.6	1,777.7	3.9	163.0	173.00	-1,346.1	165.4	1,356.2	1,312.7	43.54	31.150	
1,900.0	1,900.0	1,869.2	1,868.3	4.1	166.4	173.00	-1,346.3	165.4	1,356.4	1,310.9	45.46	29.836	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Pathfinder Anticollision Report

PATHFINDER
A Schlumberger Company

Company: Yates Petroleum Corp.
Project: Eddy County (NAD 83)
Reference Site: Cerros AQF Federal Com
Site Error: 0.0 usft
Reference Well: #2H
Well Error: 0.0 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well #2H
TVD Reference: KB = @ 3495.0usft (Silver Oak 10)
MD Reference: KB = @ 3495.0usft (Silver Oak 10)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Offset Design Cerros AQF Federal Com - #1 - OH - OH												Offset Site Error:	0.0 usft
Survey Program: 255-INC												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,000.0	2,000.0	1,970.5	1,969.7	4.4	170.2	173.00	-1,346.3	165.4	1,356.5	1,308.8	47.62	28.486	
2,100.0	2,100.0	2,071.9	2,071.0	4.6	174.0	173.00	-1,346.3	165.4	1,356.4	1,306.6	49.78	27.247	
2,200.0	2,200.0	2,173.2	2,172.3	4.8	177.9	173.00	-1,346.2	165.4	1,356.3	1,304.4	51.95	26.107	
2,231.4	2,231.4	2,205.0	2,204.1	4.9	179.1	173.00	-1,346.1	165.4	1,356.2	1,303.6	52.63	25.767	
2,300.0	2,300.0	2,266.1	2,265.2	5.0	182.3	173.00	-1,346.3	165.4	1,356.4	1,302.3	54.08	25.080	
2,400.0	2,400.0	2,368.6	2,367.6	5.3	188.3	173.00	-1,346.5	165.4	1,356.7	1,300.1	56.54	23.994	
2,500.0	2,500.0	2,471.0	2,470.0	5.5	194.3	173.00	-1,346.6	165.4	1,356.8	1,297.7	59.00	22.995	
2,600.0	2,600.0	2,573.4	2,572.4	5.7	200.3	173.00	-1,346.5	165.4	1,356.7	1,295.2	61.47	22.071	
2,700.0	2,700.0	2,675.8	2,674.8	5.9	206.2	173.00	-1,346.3	165.4	1,356.4	1,292.5	63.93	21.215	
2,800.0	2,800.0	2,773.1	2,772.1	6.2	212.2	173.00	-1,346.0	165.4	1,356.1	1,289.9	66.23	20.475	
2,900.0	2,900.0	2,871.5	2,870.5	6.4	218.6	173.00	-1,345.9	165.4	1,356.0	1,287.5	68.51	19.793	
2,932.5	2,932.5	2,903.5	2,902.5	6.5	220.7	173.00	-1,345.9	165.4	1,356.0	1,286.8	69.25	19.581	
3,000.0	3,000.0	2,970.0	2,968.9	6.6	225.0	173.00	-1,345.9	165.4	1,356.0	1,285.3	70.79	19.156	
3,100.0	3,100.0	3,088.0	3,086.9	6.8	232.6	173.00	-1,346.1	165.4	1,356.3	1,282.8	73.47	18.460	
3,140.1	3,140.1	3,111.2	3,110.1	6.9	234.0	173.00	-1,346.1	165.4	1,356.2	1,282.2	74.04	18.317	
3,200.0	3,200.0	3,171.1	3,170.0	7.1	237.4	173.00	-1,346.1	165.4	1,356.2	1,280.8	75.41	17.985	
3,300.0	3,300.0	3,271.1	3,270.0	7.3	243.3	173.00	-1,346.1	165.4	1,356.2	1,278.5	77.76	17.441	
3,400.0	3,400.0	3,371.1	3,370.0	7.5	249.1	173.00	-1,346.1	165.4	1,356.2	1,276.1	80.14	16.922	
3,500.0	3,500.0	3,471.1	3,470.0	7.7	254.9	173.00	-1,346.1	165.4	1,356.2	1,273.7	82.53	16.434	
3,600.0	3,600.0	3,571.1	3,570.0	8.0	260.8	173.00	-1,346.1	165.4	1,356.2	1,271.3	84.91	15.973	
3,656.1	3,656.1	3,627.2	3,626.1	8.1	264.0	173.00	-1,346.1	165.4	1,356.2	1,270.0	86.24	15.725	
3,700.0	3,700.0	3,668.4	3,667.2	8.2	266.5	173.00	-1,346.1	165.4	1,356.2	1,269.0	87.23	15.547	
3,800.0	3,800.0	3,769.8	3,768.7	8.4	273.1	173.00	-1,346.3	165.4	1,356.4	1,266.7	89.66	15.129	
3,900.0	3,900.0	3,871.3	3,870.1	8.6	279.7	173.00	-1,346.3	165.4	1,356.4	1,264.3	92.08	14.730	
4,000.0	4,000.0	3,972.8	3,971.6	8.9	286.3	173.00	-1,346.2	165.4	1,356.4	1,261.9	94.51	14.351	
4,100.0	4,100.0	4,074.0	4,072.8	9.1	292.9	173.00	-1,346.1	165.4	1,356.2	1,259.3	96.93	13.992	
4,200.0	4,200.0	4,172.7	4,171.5	9.3	299.2	173.00	-1,345.9	165.4	1,356.0	1,256.8	99.23	13.666	
4,300.0	4,300.0	4,271.4	4,270.2	9.5	305.6	172.99	-1,345.9	165.4	1,356.0	1,254.4	101.53	13.356	
4,312.7	4,312.7	4,284.0	4,282.7	9.6	306.4	172.99	-1,345.9	165.4	1,356.0	1,254.2	101.82	13.317	
4,400.0	4,400.0	4,370.1	4,368.8	9.8	312.0	173.00	-1,345.9	165.4	1,356.0	1,252.2	103.83	13.061	
4,500.0	4,500.0	4,468.8	4,467.5	10.0	318.4	173.00	-1,346.0	165.4	1,356.1	1,250.0	106.12	12.779	
4,600.0	4,600.0	4,571.3	4,570.0	10.2	324.6	173.00	-1,346.1	165.4	1,356.2	1,247.7	108.48	12.502	
4,700.0	4,700.0	4,671.3	4,670.0	10.4	330.4	173.00	-1,346.1	165.4	1,356.2	1,245.4	110.79	12.242	
4,800.0	4,800.0	4,771.3	4,770.0	10.7	336.2	173.00	-1,346.1	165.4	1,356.2	1,243.1	113.09	11.993	
4,900.0	4,900.0	4,871.3	4,870.0	10.9	342.0	173.00	-1,346.1	165.4	1,356.2	1,240.8	115.39	11.753	
5,000.0	5,000.0	4,971.4	4,970.0	11.1	347.9	173.00	-1,346.1	165.4	1,356.2	1,238.5	117.73	11.520	
5,100.0	5,100.0	5,071.4	5,070.0	11.3	353.7	173.00	-1,346.1	165.4	1,356.2	1,236.1	120.09	11.293	
5,200.0	5,200.0	5,171.4	5,170.0	11.6	359.6	173.00	-1,346.1	165.4	1,356.2	1,233.8	122.45	11.075	
5,300.0	5,300.0	5,271.4	5,270.0	11.8	365.4	173.00	-1,346.1	165.4	1,356.2	1,231.4	124.82	10.866	
5,400.0	5,400.0	5,364.4	5,362.9	12.0	371.8	173.00	-1,346.4	165.4	1,356.5	1,229.4	127.07	10.675	
5,500.0	5,500.0	5,468.1	5,466.6	12.2	379.9	173.00	-1,346.8	165.4	1,356.9	1,227.3	129.61	10.469	
5,600.0	5,600.0	5,571.7	5,570.3	12.5	388.0	173.00	-1,346.9	165.4	1,357.0	1,224.9	132.15	10.269	
5,700.0	5,700.0	5,675.4	5,673.9	12.7	396.1	173.00	-1,346.7	165.4	1,356.9	1,222.2	134.69	10.074	
5,800.0	5,800.0	5,779.0	5,777.6	12.9	404.1	173.00	-1,346.3	165.4	1,356.4	1,219.2	137.24	9.884	
5,900.0	5,900.0	5,871.6	5,870.0	13.1	412.5	173.00	-1,346.1	165.4	1,356.2	1,216.6	139.57	9.717	
6,000.0	6,000.0	5,971.6	5,970.0	13.4	422.3	173.00	-1,346.1	165.4	1,356.2	1,214.1	142.09	9.545	
6,100.0	6,100.0	6,092.0	6,090.3	13.6	434.1	173.00	-1,346.1	165.4	1,356.4	1,211.3	145.08	9.349	
6,137.8	6,137.8	6,114.0	6,112.3	13.7	435.9	173.00	-1,346.0	165.4	1,356.1	1,210.5	145.65	9.311	
6,150.0	6,150.0	6,125.5	6,123.8	13.7	436.9	-6.85	-1,346.0	165.4	1,355.9	1,209.7	146.27	9.270	
6,175.0	6,175.0	6,149.0	6,147.2	13.7	438.9	-6.88	-1,345.9	165.4	1,354.6	1,208.2	146.44	9.250	
6,200.0	6,199.8	6,172.3	6,170.6	13.8	440.9	-6.93	-1,345.9	165.4	1,352.0	1,205.7	146.34	9.238	
6,225.0	6,224.5	6,195.6	6,193.8	13.8	442.8	-7.00	-1,345.9	165.4	1,348.1	1,202.1	145.99	9.235	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Pathfinder

Anticollision Report

PATHFINDER
A Schlumberger Company

Company: Yates Petroleum Corp.
Project: Eddy County (NAD 83)
Reference Site: Cerros AQF Federal Com
Site Error: 0.0 usft
Reference Well: #2H
Well Error: 0.0 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well #2H
TVD Reference: KB = @ 3495.0usft (Silver Oak 10)
MD Reference: KB = @ 3495.0usft (Silver Oak 10)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Offset Design Cerros AQF Federal Com - #1 - OH - OH												Offset Site Error:	0 0 usft
Survey Program: 255-INC												Offset Well Error:	0 0 usft
Reference		Offset		Semi Major Axis		Distance		Minimum		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor	
6,250 0	6,249 0	6,218.6	6,216.9	13 9	444 8	-7 11	-1,345.9	165 4	1,343 0	1,197.6	145 38	9 238	
6,275 0	6,273 1	6,241 4	6,239 6	13 9	446 7	-7 24	-1,346 0	165 4	1,336 7	1,192 1	144 53	9 248	
6,300 0	6,296 9	6,278 0	6,276 2	13 9	449 8	-7 42	-1,346.1	165.4	1,329.2	1,185 3	143 87	9 238	
6,325 0	6,320 2	6,289 3	6,287 6	14 0	450.7	-7 60	-1,346 1	165 4	1,320 3	1,177 9	142 34	9 275	
6,350 0	6,343 1	6,312 6	6,310 8	14 0	452 5	-7 84	-1,346 2	165 4	1,310 2	1,169.2	141 02	9 291	
6,375 0	6,365 4	6,335 2	6,333 4	14 1	454 2	-8.11	-1,346 2	165 4	1,299 0	1,159 4	139 61	9 305	
6,400 0	6,387 0	6,357.2	6,355 4	14 1	456 0	-8 44	-1,346 2	165 4	1,286.7	1,148 5	138 19	9 311	
6,425 0	6,408 0	6,378 5	6,376 7	14 2	457 6	-8 82	-1,346 3	165 4	1,273 2	1,136 4	136 85	9 303	
6,450 0	6,428 2	6,399 1	6,397 3	14 2	459 2	-9 26	-1,346.3	165.4	1,258 7	1,123.0	135 71	9 275	
6,475 0	6,447 7	6,418 8	6,417 0	14 3	460 8	-9 78	-1,346 3	165.4	1,243 1	1,108 2	134 89	9 216	
6,500 0	6,466 2	6,437 7	6,435 9	14 4	462 2	-10 38	-1,346 3	165.4	1,226 5	1,091.9	134 59	9 113	
6,525 0	6,483 9	6,455 6	6,453 8	14 4	463.6	-11 08	-1,346.3	165 4	1,209 0	1,074 0	135 02	8 954	
6,550 0	6,500 7	6,472 6	6,470 8	14 5	464 9	-11 91	-1,346 3	165 4	1,190 6	1,054 2	136 46	8 725	
6,575 0	6,516 4	6,488 6	6,486 8	14 6	466 2	-12.89	-1,346 3	165.4	1,171 4	1,032.1	139 25	8 412	
6,600 0	6,531 1	6,503 5	6,501.7	14 7	467 4	-14 06	-1,346 3	165 4	1,151 4	1,007.6	143 80	8 007	
6,625 0	6,544 7	6,517 3	6,515.4	14 8	468 4	-15.46	-1,346.3	165.4	1,130 6	980 0	150 60	7 507	
6,650 0	6,557 3	6,529 9	6,528 1	15 0	469 4	-17 17	-1,346 3	165 4	1,109 2	948 9	160 26	6 921	
6,675 0	6,568 6	6,541 4	6,539 6	15 1	470 3	-19 27	-1,346 3	165 4	1,087 2	913 6	173 53	6 265	
6,700 0	6,578 8	6,551 7	6,549 9	15 2	471.1	-21 90	-1,346 3	165.4	1,064 6	873 2	191 36	5 563	
6,725 0	6,587 8	6,560 7	6,558 9	15 4	471 8	-25 24	-1,346 2	165 4	1,041 5	826 6	214 94	4 846	
6,750 0	6,595 5	6,568.5	6,566 7	15 6	472 4	-29 58	-1,346.2	165 4	1,018.0	772 2	245.80	4 142	
6,775 0	6,602 0	6,575 1	6,573 3	15 8	472 9	-35.30	-1,346.2	165 4	994 2	708 6	285 57	3 481	
6,800 0	6,607 2	6,580 3	6,578 5	16 0	473 3	-42 96	-1,346 2	165.4	970 1	634.7	335 33	2 893	
6,825 0	6,611.1	6,584 3	6,582.4	16 2	473 6	-53 21	-1,346 2	165 4	945 7	552 5	393 20	2 405	
6,850 0	6,613 8	6,586 9	6,585 1	16 4	473.9	-66 46	-1,346 2	165 4	921 3	471.5	449 77	2 048	
6,872 4	6,615 0	6,588 1	6,586 3	16 6	473 9	-80 42	-1,346 2	165 4	899 3	415 5	483 73	1 859	
6,900 0	6,615 9	6,589 0	6,587 2	16 8	474 0	-80 72	-1,346 2	165.4	872.1	387 7	484 46	1 800	
7,000 0	6,619 1	6,592.1	6,590 3	17 8	474 3	-81 79	-1,346 2	165 4	774 1	287 0	487 09	1 589	
7,100 0	6,622 4	6,595 2	6,593 4	19 0	474 5	-82 87	-1,346 2	165 4	676.7	187 0	489 68	1 382 Level 3	
7,200 0	6,625 6	6,598 3	6,596 5	20 2	474.7	-83 95	-1,346 2	165 4	580 1	87 9	492 20	1 179 Level 2	
7,300 0	6,628 8	6,601 4	6,599 6	21 5	475.0	-85 04	-1,346 2	165 4	484 9	-9 7	494 65	0 980 Level 1	
7,400 0	6,632 1	6,604 4	6,602 6	22 9	475.2	-86 12	-1,346 2	165 4	392 1	-104 9	496 99	0 789 Level 1	
7,500 0	6,635 3	6,607 5	6,605.7	24.4	475.5	-87.21	-1,346 2	165 4	303 9	-195 4	499 22	0 609 Level 1	
7,600 0	6,638 5	6,610 6	6,608 8	25 8	475 7	-88 29	-1,346 2	165 4	225 6	-275 7	501 33	0 450 Level 1	
7,700 0	6,641 7	6,613 6	6,611 8	27 4	475 9	-89 37	-1,346 2	165 4	171 6	-331 7	503 29	0 341 Level 1	
7,757 4	6,643 6	6,615 4	6,613 6	28 3	476.1	-90 00	-1,346 2	165 4	161 7	-342 7	504 36	0 321 Level 1, CC, ES, SF	
7,800 0	6,645 0	6,616.7	6,614 9	29 0	476 2	-90.46	-1,346 2	165.4	167 2	-337 9	505 12	0 331 Level 1	
7,900 0	6,648 2	6,619 7	6,617 9	30 6	476 4	-91 53	-1,346 2	165.4	215 5	-291 2	506 79	0 425 Level 1	
8,000 0	6,651 4	6,622 8	6,621 0	32 2	476 7	-92 61	-1,346 1	165 4	291 5	-216 9	508 31	0 573 Level 1	
8,100 0	6,654 7	6,625 8	6,624 0	33 8	476.9	-93 68	-1,346.1	165 4	378 7	-131 0	509 68	0 743 Level 1	
8,200 0	6,657 9	6,628 8	6,627 0	35 5	477 1	-94.74	-1,346.1	165 4	471 0	-39 9	510 88	0 922 Level 1	
8,300 0	6,661 1	6,631.8	6,630 0	37 2	477.4	-95 80	-1,346 1	165 4	565 9	54 0	511 93	1 106 Level 2	
8,400 0	6,664 3	6,634 8	6,633 0	38.9	477 6	-96 85	-1,346 1	165 4	662 3	148.5	512 81	1 292 Level 3	
8,500 0	6,667 6	6,637 9	6,636 0	40 6	477 8	-97 90	-1,346 1	165 4	759 7	246 1	513 54	1 479 Level 3	
8,600 0	6,670 8	6,640 8	6,639 0	42 3	478 1	-98 94	-1,346 1	165 4	857 6	343.5	514 11	1 668	
8,700 0	6,674 0	6,643 8	6,642 0	44 0	478.3	-99 97	-1,346 1	165 4	955.9	441 4	514 53	1 858	
8,800 0	6,677 3	6,646 8	6,645 0	45 8	478 5	-100 99	-1,346 1	165 4	1,054 6	539 8	514 79	2 049	
8,900 0	6,680 5	6,650 0	6,648 1	47 5	478 8	-102 04	-1,346 1	165 4	1,153 5	638 6	514 84	2 240	
9,000 0	6,683 7	6,650.0	6,648 1	49 2	478 8	-102 04	-1,346 1	165 4	1,252 5	736 0	516 56	2 425	
9,100 0	6,686.9	6,650.0	6,648 1	51 0	478 8	-102 04	-1,346 1	165.4	1,351 7	833 4	518 28	2 608	
9,200 0	6,690 2	6,650 0	6,648 1	52 8	478 8	-102 04	-1,346.1	165 4	1,451 0	931 0	520 01	2 790	
9,300 0	6,693.4	6,650 0	6,648 1	54 5	478 8	-102 04	-1,346.1	165.4	1,550 4	1,028 7	521.74	2 972	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Pathfinder
Anticollision Report

PATHFINDER
A Schlumberger Company

Company: Yates Petroleum Corp.
Project: Eddy County (NAD 83)
Reference Site: Cerros AQF Federal Com
Site Error: 0.0 usft
Reference Well: #2H
Well Error: 0.0 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well #2H
TVD Reference: KB = @ 3495.0usft (Silver Oak 10)
MD Reference: KB = @ 3495.0usft (Silver Oak 10)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Offset Design Cerros AQF Federal Com - #1 - OH - OH													Offset Site Error: 0.0 usft
Survey Program: 255-INC													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,400.0	6,696.6	6,650.0	6,648.1	56.3	478.8	-102.04	-1,346.1	165.4	1,649.9	1,126.4	523.47	3.152	
9,500.0	6,699.9	6,650.0	6,648.1	58.1	478.8	-102.04	-1,346.1	165.4	1,749.4	1,224.2	525.21	3.331	
9,600.0	6,703.1	6,650.0	6,648.1	59.8	478.8	-102.04	-1,346.1	165.4	1,849.0	1,322.0	526.96	3.509	
9,700.0	6,706.3	6,650.0	6,648.1	61.6	478.8	-102.04	-1,346.1	165.4	1,948.6	1,419.9	528.70	3.686	
9,800.0	6,709.6	6,650.0	6,648.1	63.4	478.8	-102.04	-1,346.1	165.4	2,048.2	1,517.8	530.45	3.861	
9,900.0	6,712.8	6,650.0	6,648.1	65.2	478.8	-102.04	-1,346.1	165.4	2,147.9	1,615.7	532.20	4.036	
10,000.0	6,716.0	6,650.0	6,648.1	67.0	478.8	-102.04	-1,346.1	165.4	2,247.6	1,713.7	533.96	4.209	
10,100.0	6,719.2	6,650.0	6,648.1	68.8	478.8	-102.04	-1,346.1	165.4	2,347.4	1,811.7	535.71	4.382	
10,200.0	6,722.5	6,650.0	6,648.1	70.6	478.8	-102.04	-1,346.1	165.4	2,447.1	1,909.7	537.47	4.553	
10,300.0	6,725.7	6,650.0	6,648.1	72.4	478.8	-102.04	-1,346.1	165.4	2,546.9	2,007.7	539.23	4.723	
10,400.0	6,728.9	6,650.0	6,648.1	74.2	478.8	-102.04	-1,346.1	165.4	2,646.7	2,105.7	541.00	4.892	
10,500.0	6,732.2	6,650.0	6,648.1	76.0	478.8	-102.04	-1,346.1	165.4	2,746.5	2,203.8	542.76	5.060	
10,600.0	6,735.4	6,650.0	6,648.1	77.8	478.8	-102.04	-1,346.1	165.4	2,846.4	2,301.8	544.53	5.227	
10,700.0	6,738.6	6,650.0	6,648.1	79.6	478.8	-102.04	-1,346.1	165.4	2,946.2	2,399.9	546.29	5.393	
10,800.0	6,741.8	6,650.0	6,648.1	81.4	478.8	-102.04	-1,346.1	165.4	3,046.0	2,498.0	548.06	5.558	
10,900.0	6,745.1	6,650.0	6,648.1	83.2	478.8	-102.04	-1,346.1	165.4	3,145.9	2,596.1	549.83	5.722	
11,000.0	6,748.3	6,650.0	6,648.1	85.0	478.8	-102.04	-1,346.1	165.4	3,245.8	2,694.2	551.60	5.884	
11,052.6	6,750.0	6,650.0	6,648.1	85.9	478.8	-102.04	-1,346.1	165.4	3,298.3	2,745.7	552.54	5.969	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Pathfinder

Anticollision Report

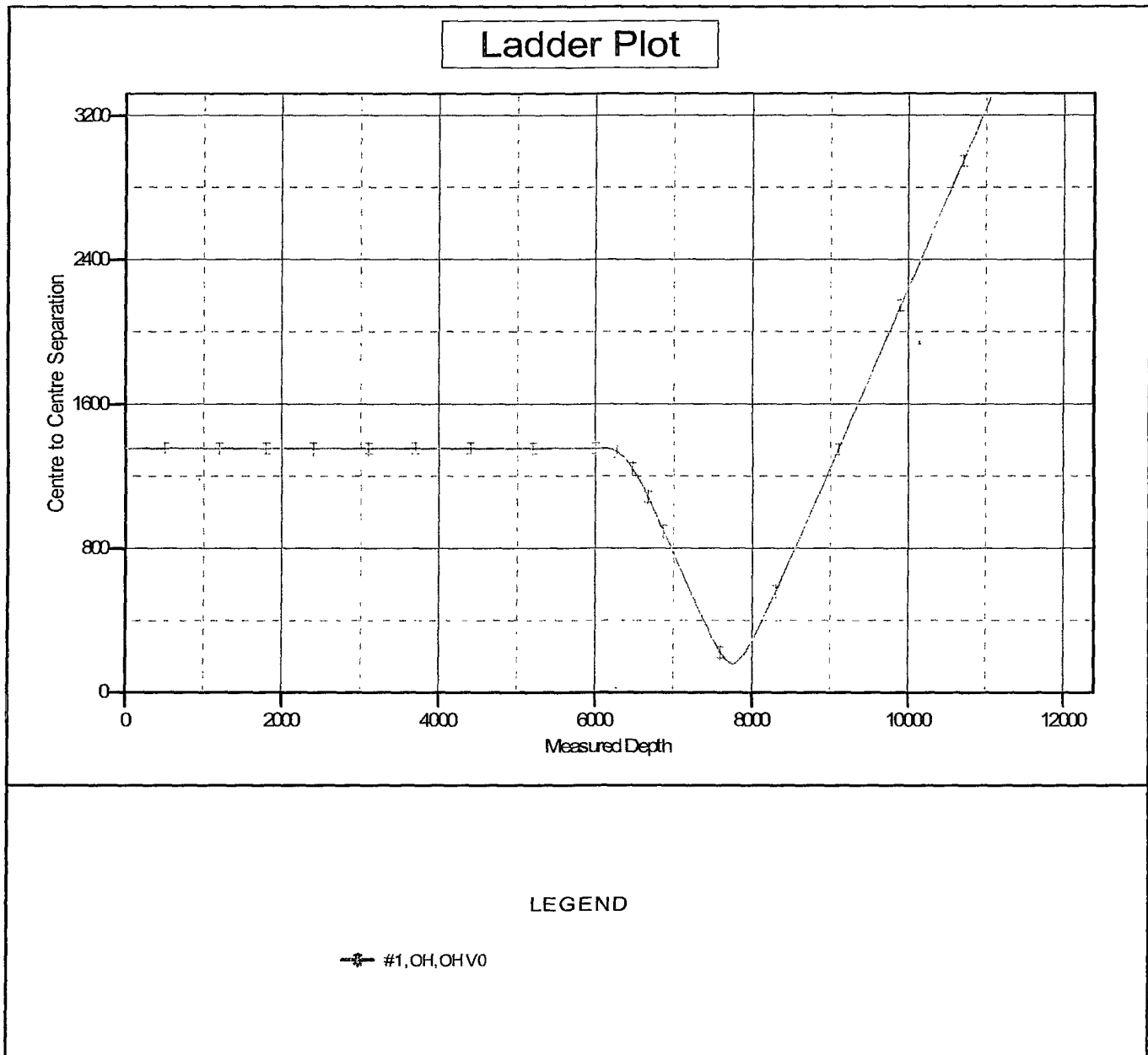
PATHFINDER
A Schlumberger Company

Company: Yates Petroleum Corp.
Project: Eddy County (NAD 83)
Reference Site: Cerros AQF Federal Com
Site Error: 0.0 usft
Reference Well: #2H
Well Error: 0.0 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well #2H
TVD Reference: KB = @ 3495 0usft (Silver Oak 10)
MD Reference: KB = @ 3495 0usft (Silver Oak 10)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB = @ 3495.0usft (Silver Oak 10)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: #2H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.15°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Pathfinder

Anticollision Report

PATHFINDER
A Schlumberger Company

Company: Yates Petroleum Corp.
Project: Eddy County (NAD 83)
Reference Site: Cerros AQF Federal Com
Site Error: 0.0 usft
Reference Well: #2H
Well Error: 0.0 usft
Reference Wellbore: OH
Reference Design: Plan #1

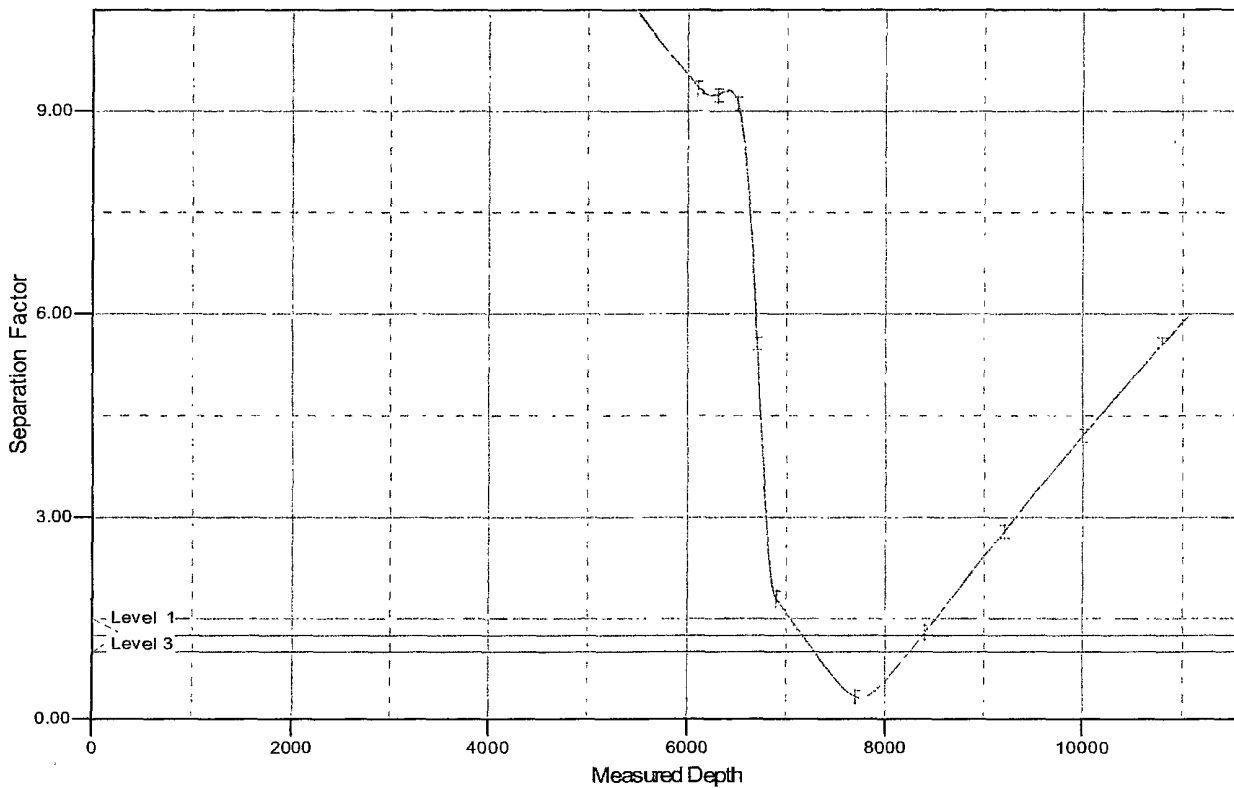
Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Output errors are at
Database:
Offset TVD Reference:

Well #2H
KB = @ 3495.0usft (Silver Oak 10)
KB = @ 3495.0usft (Silver Oak 10)
Grid
Minimum Curvature
2.00 sigma
EDM 5000.1 Single User Db
Offset Datum

Reference Depths are relative to KB = @ 3495.0usft (Silver Oak 10)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

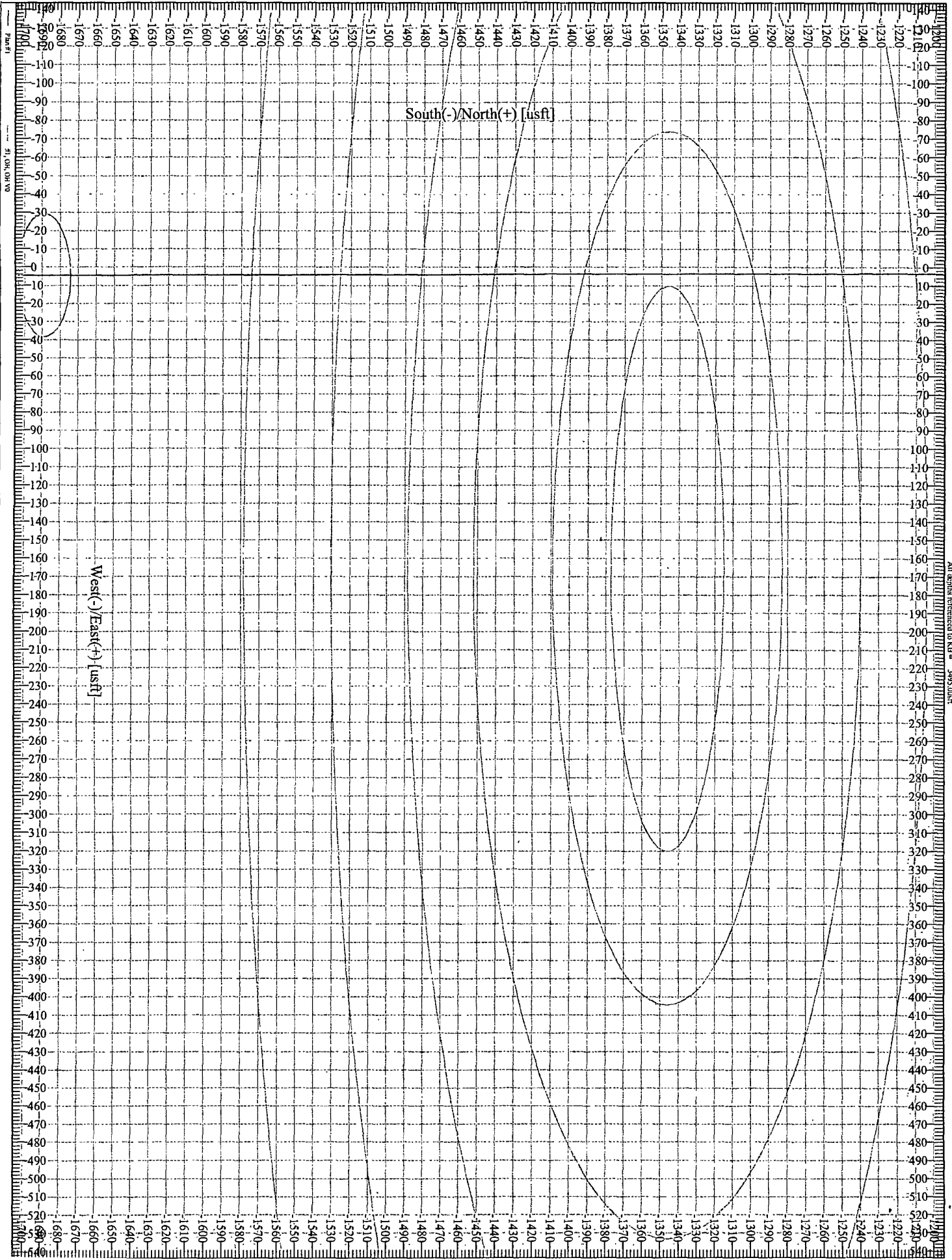
Coordinates are relative to: #2H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.15°

Separation Factor Plot

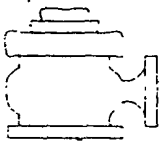


LEGEND

— #1, OH, OHV0



Eddy County (NAD 83) - Cornus AOF Federal Cam
All depths referenced to KB = 3495.0m

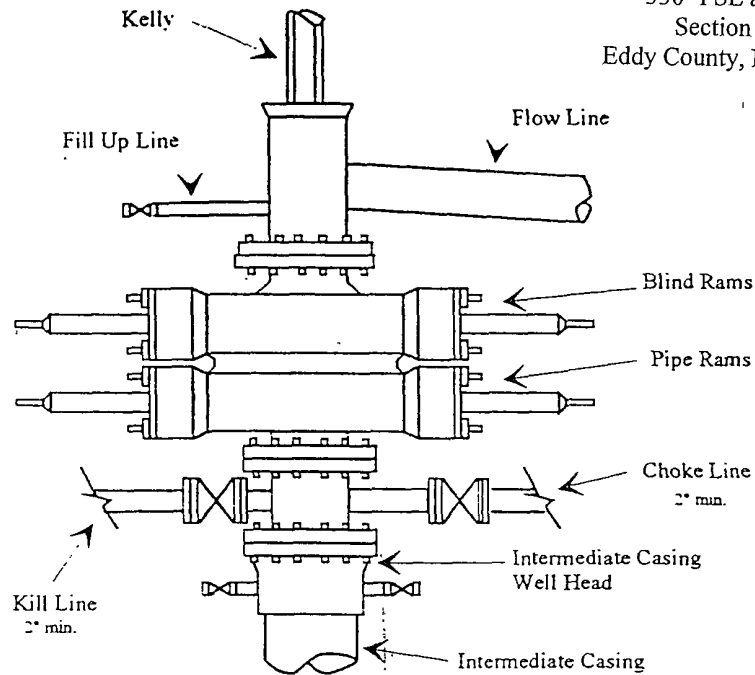


Yates Petroleum Corporation

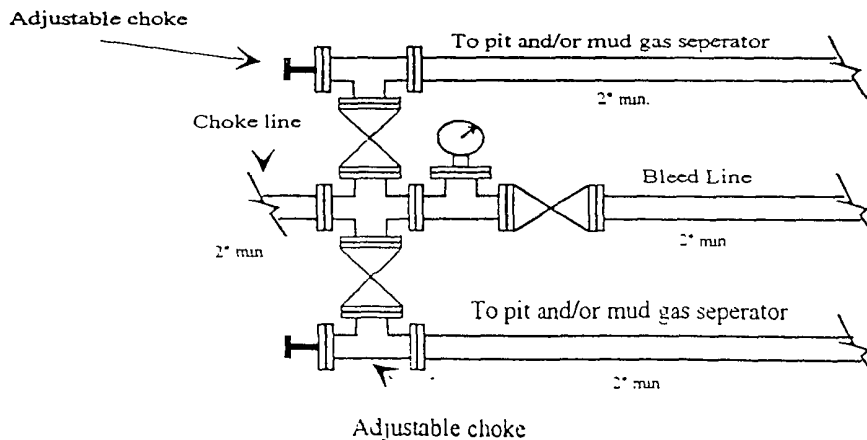
BOP-2

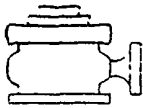
Typical 2,000 psi Pressure System Schematic Double Ram Preventer Stack

YATES PETROLEUM CORPORATION
Cerros AQF Federal Com. #2H
310' FNL and 810' FEL SHL
330' FSL and 810' FEL BHL
Section 15, T18S-R29E
Eddy County, New Mexico Exhibit C



Typical 2,000 psi choke manifold assembly with at least these minimum features



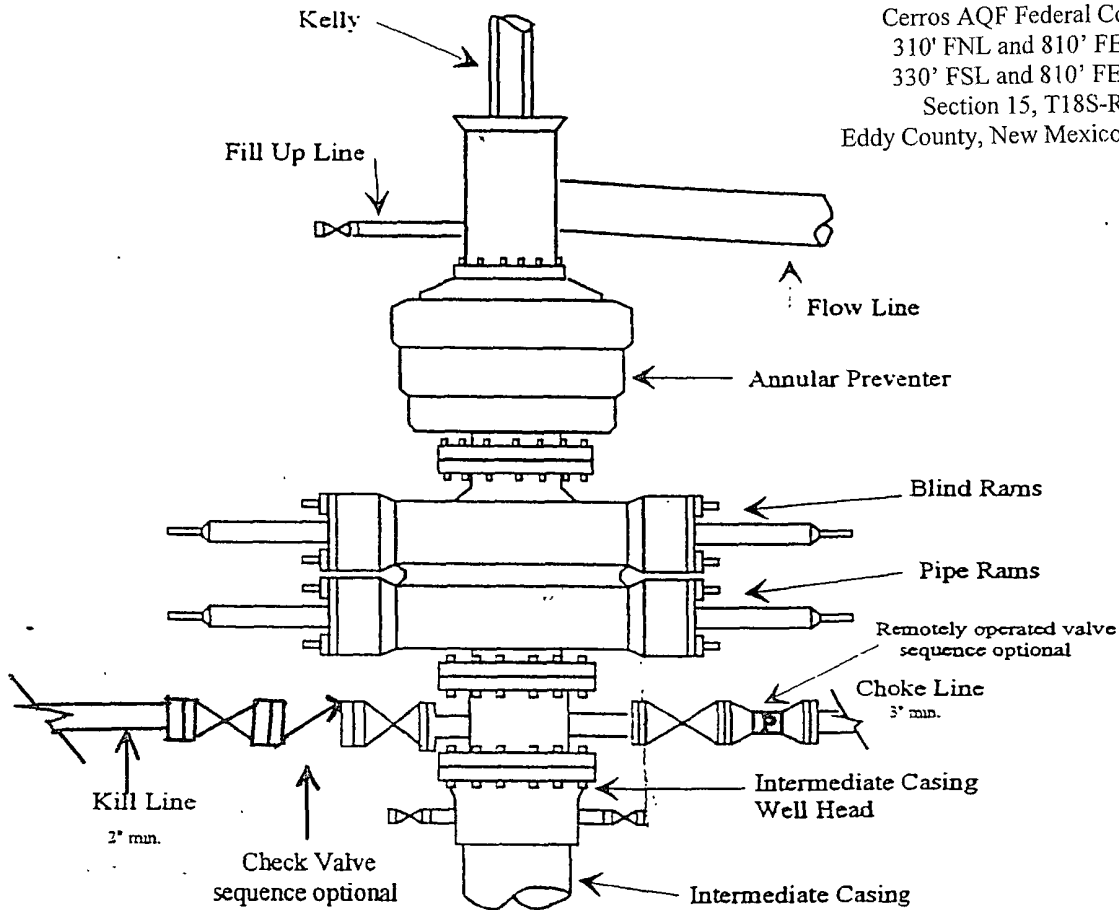


Yates Petroleum Corporation

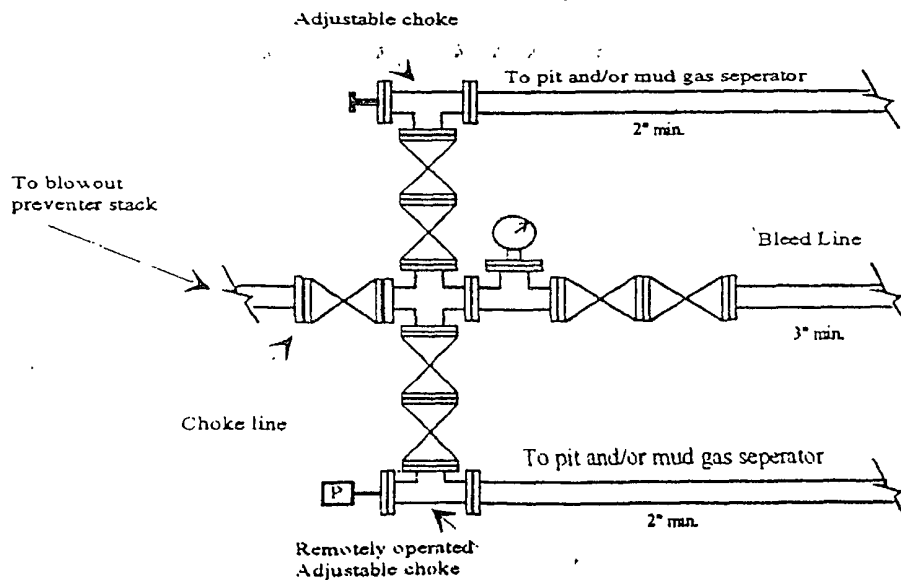
BOP-4

Typical 5,000 psi Pressure System Schematic Annular with Double Ram Preventer Stack

YATES PETROLEUM CORPORATION
Cerro AQF Federal Com. #2H
310' FNL and 810' FEL SHL
330' FSL and 810' FEL BHL
Section 15, T18S-R29E
Eddy County, New Mexico Exhibit C-1



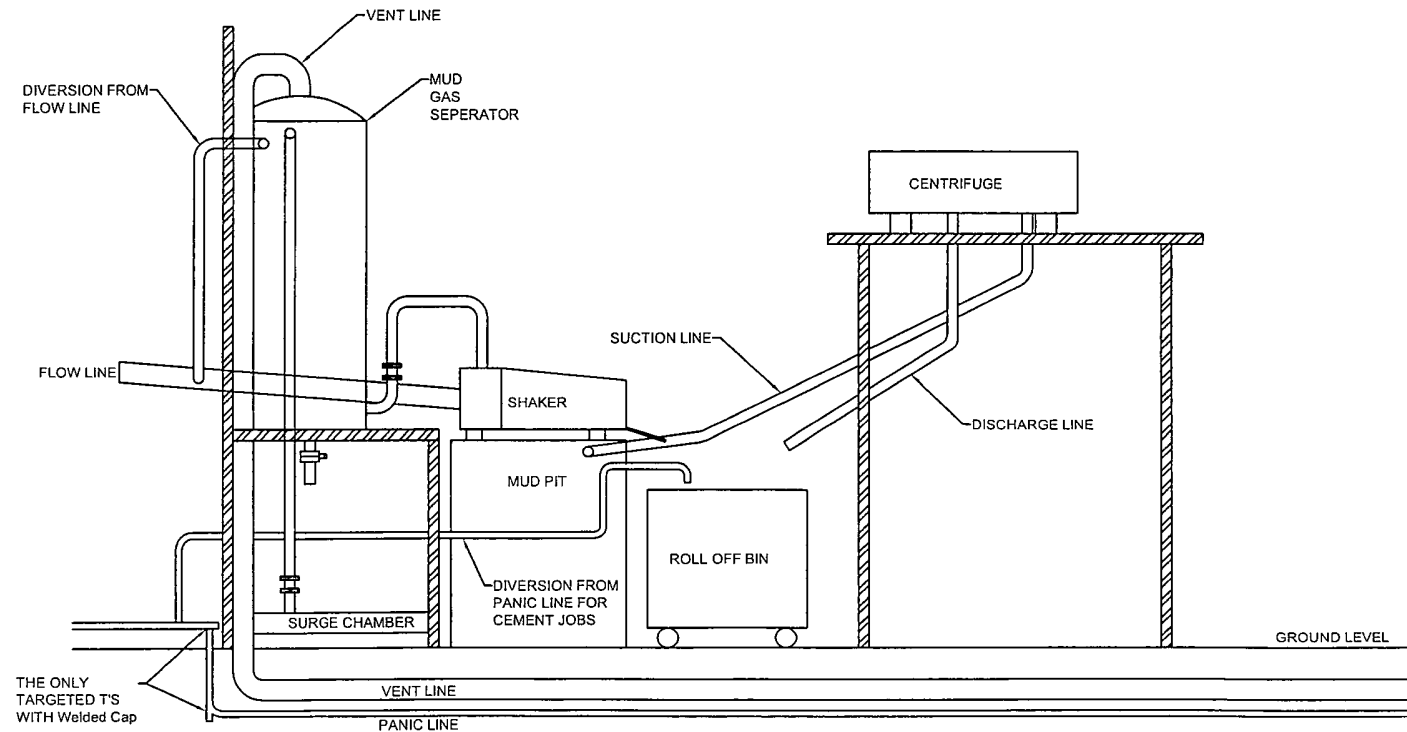
Typical 5,000 psi choke manifold assembly with at least these minimum features



YATES PETROLEUM CORPORATION
Cerros AQF Federal Com. #2H
310' FNL and 810' FEL SHL
330' FSL and 810' FEL BHL
Section 15, T18S-R29E
Eddy County, New Mexico Exhibit D

YATES PETROLEUM CORPORATION

Piping from Choke Manifold
to the Closed Loop Drilling Mud System



The flare discharge must be 100' from wellhead for non H2S wells and 150' from wellhead for wells expected to encounter H2S

Yates Petroleum Corporation

**105 S. Fourth Street
Artesia, NM 88210**

Hydrogen Sulfide (H₂S) Contingency Plan

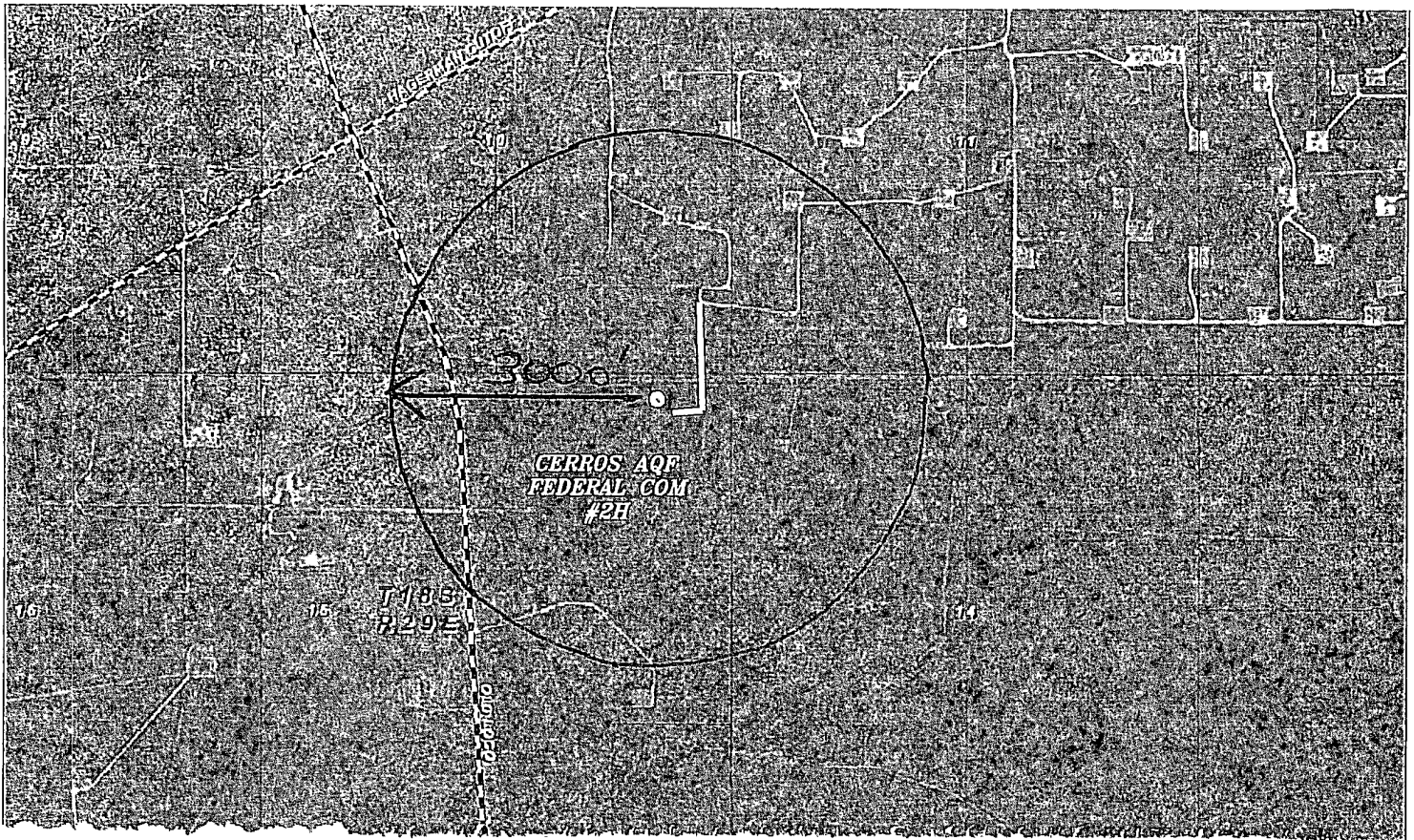
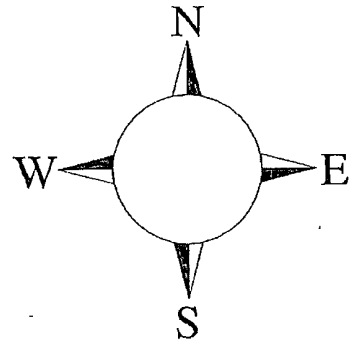
For

Cerros AQF Federal Com #2H

**310' FNL and 810' FEL
Section 15, T-18-S, R-29-E
Eddy County, NM**

Cerros AQF Federal Com #2H

This is an open drilling site. H₂S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H₂S, including warning signs, wind indicators and H₂S monitor.



Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the case of a release of gas containing H₂S, the first responder(s) must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

All responders must have training in the detection of H₂S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H₂S monitors and air packs in order to control the release. Use the “buddy system” to ensure no injuries during the response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

YPC personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. YPC Company response must be in coordination with the State of New Mexico’s ‘Hazardous Materials Emergency Response Plan’ (HMER)

Yates Petroleum Corporation Phone Numbers

YPC Office	(575) 748-1471
Pinson McWhorter/Operations Manager	(575) 748-4189
Wade Bennett/Prod Superintendent	(575) 748-4236
LeeRoy Richards/Assistant Prod Superintendent	(575) 748-4228
Mike Larkin/Drilling	(575) 748-4222
Paul Hanes/Prod. Foreman/Roswell	(575) 624-2805
Tim Bussell/Drilling Superintendent	(575) 748-4221
Artesia Answering Service	(575) 748-4302
(During non-office hours)	

Agency Call List

Eddy County (575)

Artesia

State Police	746-2703
City Police.....	746-2703
Sheriff's Office	746-9888
Ambulance	911
Fire Department	746-2701
LEPC (Local Emergency Planning Committee)	746-2122
NMOCD.....	748-1283

Carlsbad

State Police	885-3137
City Police.....	885-2111
Sheriff's Office	887-7551
Ambulance	911
Fire Department	885-2111
LEPC (Local Emergency Planning Committee).....	887-3798
US Bureau of Land Management.....	887-6544
New Mexico Emergency Response Commission (Santa Fe)	(505)476-9600
24 HR	(505) 827-9126
New Mexico State Emergency Operations Center.....	(505) 476-9635
National Emergency Response Center (Washington, DC)	...(800) 424-8802

Other

Boots & Coots IWC	1-800-256-9688 or (281) 931-8884
Cudd Pressure Control.....	(915) 699-0139 or (915) 563-3356
Halliburton	(575) 746-2757
B. J. Services.....	(575) 746-3569

Flight For Life -4000 24th St, Lubbock, TX	(806) 743-9911
Aerocare -Rr 3 Box 49f, Lubbock, TX	(806) 747-8923
Med Flight Air Amb 2301 Yale Blvd SE #D3, Albuq, NM	(505) 842-4433
S B Air Med Svc 2505 Clark Carr Loop SE, Albuq, NM	(505) 842-4949

Yates Petroleum Corporation

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H₂S).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H₂S on metal components. If high tensile tubular are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H₂S Drilling Operations Plan and H₂S Contingency Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operation Plan and the H₂S Contingency Plan. **The location of this well does not require a Public Protection Plan.**

II. H2S SAFETY EQUIPMENT AND SYSTEMS

NOTE: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S.

1. Well Control Equipment:

- A. Flare line
- B. Choke manifold
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer & rotating head.

2. Protective equipment for essential personnel:

- A. Mark II Survive Air (or equivalent) 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

3. H2S detection and monitoring equipment:

- A. 3 portable H2S monitors positioned at: Shale Shaker, Bell Nipple, and Rig Floor. These units have warning lights and audible sirens when H2S levels of 10 PPM are reached.

4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram (attached).
- B. Caution/Danger signs (attached) shall be posted on roads providing direct access to location. Signs will be painted with high visibility yellow with black lettering of a sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

5. Mud program:

- A. The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

6. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- B. All elastomers used for packing and seals shall be H2S trim.

7. Communication:

- A. Cellular communications in company vehicles.
- B. Land line (telephone) communication at the Office.

8. Well testing:

- A. There will be no drill stem testing.

EXHIBIT

DANGER
POISONS GAS
HYDROGEN SULFIDE
 **NORMAL OPERATIONS**
(GREEN)
CAUTION POTENTIAL DANGER
(YELLOW)
 **DANGER POISONS GAS ENCOUNTERED**
(RED) **AUTHORIZED PERSONAL ONLY.**
LOCATION SECURED.
1-575-746-1096
1-877-879-8899

EDDY COUNTY EMERGENCY NUMBERS

ARTESIA FIRE DEPT. 575-746-5050
ARTESIA POLICE DEPT. 575-746-5000
EDDY CO. SHERIFF DEPT. 575-746-9888

LEA COUNTY EMERGENCY NUMBERS

HOBBS FIRE DEPT. 575-397-9308
HOBBS POLICE DEPT. 575-397-9285
LEA CO. SHERIFF DEPT. 575-396-1196

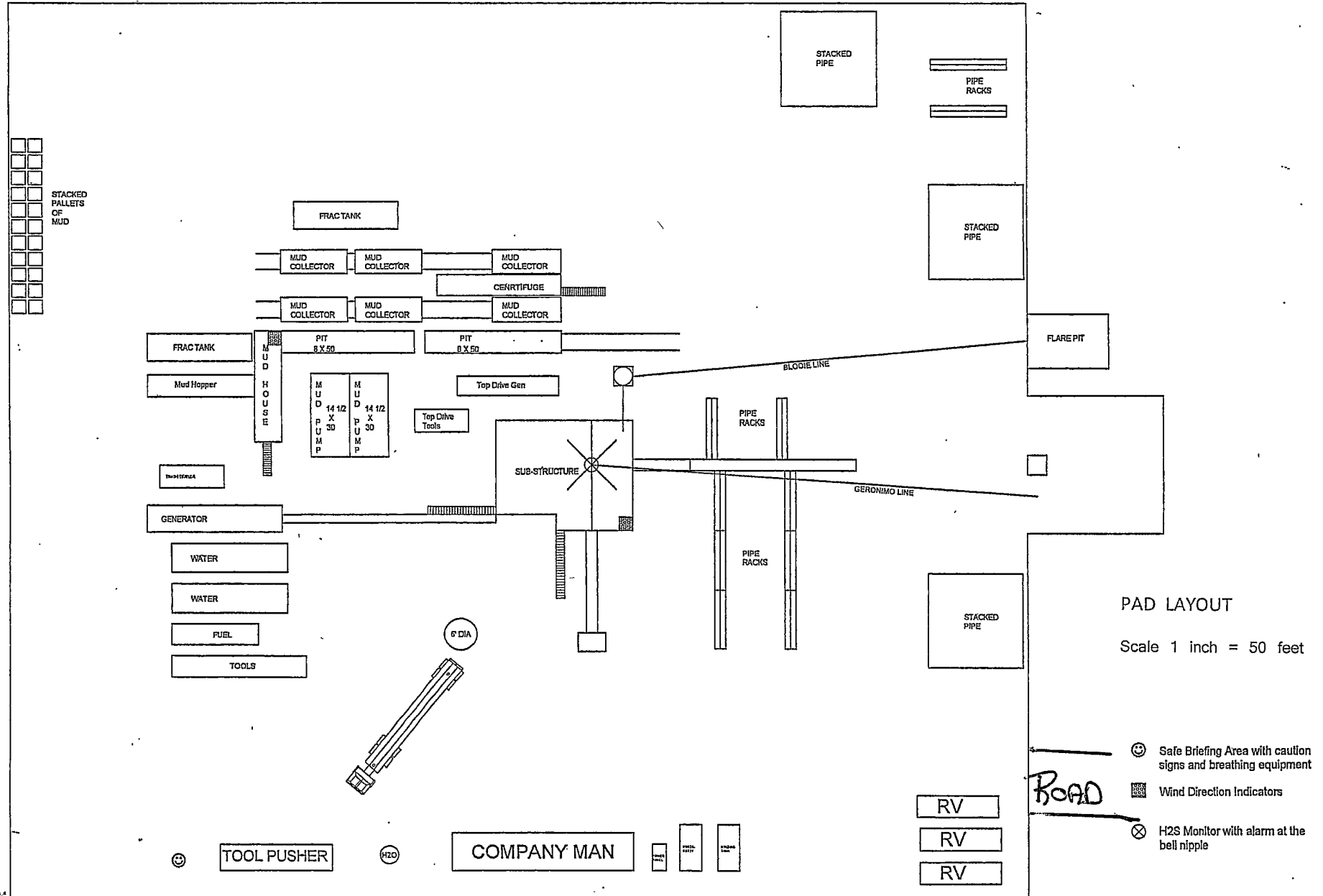
Cerros AQF Federal Com #2H

310' FNL and 810' FEL

Section 15, T-18-S, R-29-E

Eddy County, NM

Yates Petroleum Corporation



PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	YATES PETROLEUM CORPORATION
LEASE NO.:	NM0437524
WELL NAME & NO.:	2H CERROS AQF FEDERAL COM
SURFACE HOLE FOOTAGE:	310'/N & 810'/E.
BOTTOM HOLE FOOTAGE	330'/S. & 810'/E.
LOCATION:	Section 15, T. 18 S., R. 29 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Cave/Karst
 - VRM
 - Cultural
 - Communitization Agreement
- ☐ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - Logging Requirements
 - Casing Requirements
 - Waste Material and Fluids
- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**